

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of	)	WC Docket No. 05-337
High Cost Universal Service Support	)	
and	)	
Federal-State Joint Board on	)	CC Docket No. 96-
	)	45
Universal Service	)	

Comments of Sacred Wind Communications, Inc.  
re: Joint Board Recommended Decision

**Introduction and Summary**

Sacred Wind Communications, Inc. ("SWC") congratulates the FCC and the Joint Board for its attention to improving the universal service support system. SWC intends to address some of the many concepts discussed in the Joint Board's Recommended Decision for which the FCC seeks comment. SWC believes that its particular operating circumstances and its particular customer base are comparatively unique among other rural incumbent local exchange carriers ("incumbent LEC" or "ILEC"), and further believes that its comments may contribute something of value to this discussion.

SWC is an incumbent LEC operating in northwestern New Mexico, whose customer base is nearly 96 percent Navajo Indian and is one of the least served areas in the country. Having purchased in December 2006 all of Qwest Corporation's copper wire network on Navajo lands in New Mexico, SWC began its operations with approximately 2,000 wireline residential customers and another 6,500-7,000 households in its territory with no home-based telecommunications service whatsoever – that is, a telephone penetration rate of around 22 percent. Due to the difficulties in acquiring land use permits and other

rights of way authorizations across tribal and other federally managed lands, and due to the considerable costs of constructing wireline systems across the 3,200 square miles of such territory, the wireline telephone formula applied to the Navajo Nation failed, and continues to fail, its population miserably. This is why SWC has developed plans, and has begun, to build a fixed wireless network to carry basic and advanced telecommunications and information services to its unserved customers.

Broadband is even more scarce on Navajo lands. Of the 2,000 residential and approximately 200 commercial customers that SWC acquired from Qwest, only 25 subscribe to DSL, all of whom are provided such service by Qwest Corporation and live on the periphery of a town adjacent to the Reservation within the requisite distance of a Qwest DSL module. SWC's fixed wireless network plans include making broadband available to every household we serve, for which SWC has received a USDA-RUS loan to do so. In this set of comments SWC will observe that the broadband design included in its USDA-RUS loan was based on the minimum broadband definition currently used by the FCC – 200 kbps or greater. If the FCC adopts a higher threshold for the purpose of USF support, SWC will likely seek support for incremental costs for the system-wide changes needed to increase the throughput for all of our customers.

Additionally, the customers SWC serves are generally lower income and extremely rural. For the Navajo Nation at large, the median family income is \$11,885. Over 56 percent of Navajos live under the national poverty level, the highest poverty rate in the country even among American Indians.<sup>1</sup> SWC calculates that, among the unserved households, far higher poverty levels will be found, since the currently served Navajo customers, living proximate to rural towns and along state and interstate highways, tend to secure employment in nearby towns and represent for SWC the “lower hanging fruit” that it acquired.

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<sup>1</sup> <http://www.indiancountryextension.org/extension.php?=6>

There exist no wireline competitive local exchange carriers (“competitive LECs” or “CLECS”) in this area; only mobile wireless carriers operate within or within sight of SWC’s service territory and only one mobile wireless carrier – Smith Bagley, operating as CellularOne – possesses ETC designation. Upon information and belief, the preponderance of CellularOne’s wireless facilities that may serve Navajo people in New Mexico serve the transient traffic along Interstate 40 between Albuquerque and Gallup, then continuing to the Arizona border; and along NM State Road 550, originating outside of Albuquerque and then reaching Bloomfield, NM through 80 miles of Navajo lands.

Two-thirds of SWC’s customers live within a 1,000 square mile area north and south of Interstate 40, stretching 85 miles along Interstate 40 from the southeastern-most end of SWC’s territory to the Arizona border; and another third of its customers live within a 2,200 square mile area south and east of NM State Road 550, stretching 90 miles from its boundary at the Counselor Chapter, up to Bloomfield, NM, and then across the Bloomfield Highway west of Farmington, NM.

From our company’s extensive travels around the Navajo lands in New Mexico and northern Arizona, we can vouch that very little mobile wireless facilities are found away from those highways and away from the rural towns, solely dedicated to serving the Navajo populace. In comparison to the approximate 6,000 Navajo households in SWC’s 1,000 square mile territory between To’hajiilee, NM and the Arizona border along Interstate 40, there were recorded an average of 269,414 vehicles per week travelling that route along Interstate 40 in 1996.<sup>2</sup> Among the rural towns along that same route, only within Gallup, NM and Grants, NM are

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<sup>2</sup> Division of Government Research, UNM, 2/13/1998:  
[www.unm.edu/~dgrint/studies/speedlim.pdf](http://www.unm.edu/~dgrint/studies/speedlim.pdf)

mobile wireless services found to be adequate. Gallup's population is 20,209 and Grants population is 8,806.<sup>3</sup>

It is SWC's contention that wireless carriers in this general area, including the one wireless CETC, have built wireless facilities to serve the tens of thousands of customers travelling daily over Interstate 40 and State Road 550, as well as the thousands of customers who live in Gallup, Grants, Bloomfield and Farmington, NM – but not specifically to serve the more remote Navajo households.

In SWC's experience, many Navajo households subscribe to a mobile wireless telephone service that is egregiously inadequate in their locale. Countless customers have reported to SWC that they must walk, drive or ride on horseback a considerable distance from their home to pick up a signal in order to call out or to receive a pre-appointed call.

SWC raises the absence or inadequacy of mobile services in its study area in this set of comments to point to the possibility, should the FCC establish a Mobility Fund within the USF, of SWC seeking support from the fund for incremental costs incurred in adding mobile radio antenna and other infrastructure to the fixed wireless infrastructure that SWC is already building with USDA-RUS loan money. SWC contends that such incremental costs will be comparatively *de minimus* based on its current fixed wireless network design, but raises a second matter for which SWC will need FCC support – the acquisition of affordable spectrum for a mobile offering in the very remote areas of SWC's territory where nearly 30,000 people live. SWC hopes that one consequence of any mapping of underserved areas of the country, as explained in the Joint Board's Recommended Decision, will be the identification of very remote areas like ours that have sorely inadequate mobile services and would need either to have newly allocated affordable spectrum licenses to serve such areas or other

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<sup>3</sup> NM Dept. of Transportation, Statewide Multimodal Transportation Plan, 2003.

forms of assistance to ensure affordable leases of other carriers' spectrum to reach where mobile services do not reach today.

### **Scope of Reform**

SWC agrees with, and congratulates the Joint Board for, its recommendations to have the FCC establish three separate funds under the Universal Service Fund ("USF"): a Provider of Last Resort Fund ("POLRF"), a Broadband Fund, and a Mobility Fund. Such structure will allow the FCC to manage and monitor the usage of the funds, adhering to the intended purposes of the USF, far better than today, and will reduce the potential for higher customer surcharges while expanding critically needed services to underserved areas of the nation.

### **The Broadband Fund**

SWC supports the idea of a Broadband Fund for construction grants and operational support similar to that provided for basic telecommunications services. While most rural incumbent LECs in New Mexico have done an admirable job in extending broadband services over fiber, coaxial and copper cabling to much of their customer base, there still exist large swaths of New Mexico's geography -- tribal and nontribal lands -- that are unserved and underserved by broadband systems. In SWC's territory, acquired from Qwest Corporation in December 2006, broadband is unavailable to 98 percent of all households. Of the 2,200 customers that SWC acquired in its asset purchase, only 25 currently subscribe to DSL, and those only because those customers reside in an area adjoining towns where Qwest provides DSL to its own customers. SWC has received a USDA-RUS loan to upgrade its network and expand the network to reach 6,500-7,000 additional homes within its service territory that today have no access to telephone services nor to broadband. Not even mobile services are available to most of these households. Much of SWC's expansion will be by way of a fixed wireless local loop ("FWLL") system that is

more appropriate for the vast areas within the Navajo Reservation and for dealing with rights of way issues on tribal and federal lands. SWC is currently building the infrastructure for that network, which will also be the delivery vehicle for broadband – and possibly mobile – services to its customers.

SWC additionally received a USDA-RUS Community Connect grant in 2006 to install a broadband training center at one Navajo Chapter near the Four Corners area. As part of that grant, SWC carried broadband service by FWLL from Bloomfield, NM to the Chapter 15 miles away and installed a 10 mbps channel to the Chapter headquarters where four community facilities share that capacity, including SWC's Internet Training Center. In the year that the center has been operating, over 2,300 people have visited the center and have demonstrated an enormous pent up demand for broadband services on the Reservation. Participants have used the computers in the center for public health information, for home work assignments, for job searches, for college applications, and simply to e-mail friends and family across the world, including their children in Iraq and Afghanistan.<sup>4</sup>

We also agree that some of the work involved in establishing the guidelines and parameters for the Broadband Fund should be shared with the states, but must express a concern that the execution of the FCC's program by as many as 51 regulatory jurisdictions may be different from the execution of the program by a single entity. For example, the Joint Board in Section 35 of this recommended Decision states that "[it believes] it is no longer in the public interest to use federal universal service support to subsidize competition." No matter how strenuously the FCC might make such a policy known to the states, any state that has not embraced that policy may inadvertently take action on a carrier's

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<sup>4</sup> See USDA-RUS report on Huerfano Chapter at: <http://www.usda.gov/rus/telecom/index.htm>

broadband support application biased toward stimulating competition. Moreover, unless the FCC were to establish specific and limited standards and guidelines for the states in the implementation of a broadband support program, the states may impose other tests, requirements, or procedures beyond the FCC's that would affect the timely distribution of support to carriers and services to customers. One only has to consider the years that some states took to reduce intrastate carrier access charges to the interstate level and to establish and implement a state universal service support program to conclude that a consistent and timely nation-wide Broadband Support program can only be managed by the FCC.

SWC does agree that the states possess more of the detailed knowledge of the areas unserved or underserved by broadband networks and submits that all of the investigation and data gathering for an FCC-managed Broadband Support program should be conducted by the states by a deadline imposed by the FCC. The incumbent LECs would be very helpful in this data gathering phase, since all of them should be intimately familiar with the extent of services in their service territories and the number and distribution of homes and businesses in those territories.

As an example, SWC knows the numbers of customers within its service territory that have telecommunications services and has employed global positioning systems devices (GPS) to locate and count the unserved Navajo households in its territory. SWC knows that 25 subscribe to Qwest DSL, and approximately 2,200 do not currently have access to DSL, but will have such availability by year-end 2008 at which time SWC will have converted all of its current copper wire-fed customers to its own switching systems and will have those customers accessible to broadband by way of new broadband loop cabinets that are being installed at 28 interconnection points with Qwest. Over the next four years SWC will build its FWLL network to reach an additional 6,500-7,000 Navajo

households, delivering a radio channel to each home with no less than 200 kbps download capacity.

Since the tower and monopole infrastructure that SWC is building will already be in place for telephone services and broadband to each home and business in SWC's service territory, any changes to the services, within physical limitations of the network, can be made by adding more radio antennae to the infrastructure or replacing the current with higher capacity antennae as they are developed in the future. SWC has received a USDA-RUS loan of \$70.18 million for its network construction which includes funds enough to construct an array of telecommunications towers, monopoles, radio equipment and alternative energy sources where electricity is unavailable. That loan is designed for a FWLL system that is to have a maximum shared network capacity of 300 mbps for approximately 9000 customers. Using a conservative contention ratio of 1:8 – or, one customer on line for every eight customers in the network -- SWC can assure that its customers will be able to access the Internet with a throughput of no less than 200 kbps. If the FCC's broadband goals change, and SWC would be required to increase the throughput of its broadband offering to all of its customers, SWC would likely be unable to do so with the amount of funding it has available under the USDA-RUS loan and would need to seek such additional funding from the new Broadband Fund. Any such funding would be used to install a second or third tier of radio antennae originating at the central office and extending across the backbone network up to and including the aggregation radio towers and monopoles. An alternative strategy would be to construct a fiber optic ring along the highways surrounding the Navajo Reservation and connect that ring by radio signal to SWC's FWLL backbone. In either scenario, the greatest expense of a broadband network – the radio tower infrastructure – will already have been completed under the USDA-RUS loan and not the Broadband Fund.



SWC also agrees with the Joint Board that the Broadband fund construction grants be awarded to only one provider in each geographic area. SWC's construction of a complete FWLL network to reach all its customers, using federal monies, is evidence of an effective and technologically-oriented way to achieve the federal government's universal service and broadband policy objectives. The awarding of funds to another provider to reach the same customer base, in SWC's estimation, would be a waste of taxpayer's dollars, and would increase the financial risks inherent in attempting to serve an extremely sparsely populated and low income customer base.

### **The Mobility Fund**

SWC supports the Joint Board's recommendation to establish a Mobility Fund under the USF, whose main purpose would be to enable the construction of mobile facilities to unserved or underserved areas. As seen in our description of the availability of mobile services in and near SWC's service territory in the introduction to these comments, a good deal more construction of mobile facilities is required to reach SWC's customer base. SWC would support the use of the Mobility Fund by either the wireless ETC or by SWC itself for the purpose of ensuring that all of SWC's customers would have home-based and mobile telecommunications services in their locale. Since SWC will have completed much of its FWLL tower and monopole network by 2010, the use of SWC's infrastructure for communications mobility makes economic sense.

The Joint Board's Recommended Decision includes in Section 16 of this discussion a definition of "unserved area" as one "with a significant population density but without wireless voice service." SWC seeks clarification of this term, asking if a total unserved population of approximately 30,000 (within the 9,200 Navajo homes within SWC 's service territory), and twice that amount in Frontier Telephone's territory on Navajo lands adjacent to SWC's, constitutes a significant population density over approximately 9,000-10,000 square miles. The fact of the matter is that the large majority of those people have no home-based

telephone services and no reliable mobile communications services. SWC wholeheartedly agrees with the Joint Board's contention that "it is a legitimate goal that all consumers should have access to at least one carrier that provides a reliable [mobile] signal."<sup>5</sup>

If a mobile wireless ETC fails to respond adequately to a Broadband Fund opportunity in this geographic area, or opts to build a second wireless infrastructure exclusively for mobile communications, SWC would offer its wireless infrastructure for the placement of mobile wireless equipment as a cost-saving alternative.

### **The Provider of Last Resort Fund**

SWC strongly agrees with the Joint Board's recommendation to establish a Provider of Last Resort Fund ("POLR Fund"), comprised of the sum of all existing incumbent LEC support mechanisms. In no better way can the FCC ensure that its universal service goals will be met across this country. In spite of the current availability, or even the promise, of competition in rural America, and in the face of an ever-changing telecommunications industry, federal and state regulators understand the importance of providing assurances to telephone customers that one company in their area, and one company alone, bears the obligation of serving their entire community. The integrity of a fund exclusively for use by carriers having the POLR obligation to serve high cost areas can be considered a keystone of its universal service policy.

The integrity of the USF, however, has been attacked through several practices that have resulted in undermining the financial viability of serving rural areas. They are chiefly: doling out substantial portions of the USF to nonrural mobile wireless companies; raising nearly annually the national average loop cost ("NALC"); and not including some of the rural ETCs' actual costs of operations as allowable for USF support. The first of these has placed such a degree of

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<sup>5</sup> Joint Board Recommended Decision, Section 16, page 14.

financial pressure on the USF that its funding mechanisms have been distorted to accommodate the increasingly diminishing support for rural ETCs.

SWC had not completed its first half-year of existence when it learned that the return on investment that it expected to earn for the plant that it purchased and for its new network construction was to be reduced by approximately a full percentage point. Compounding that difficulty has been the increase annually in the NALC since SWC began its plans to take over the POLR obligation from Qwest Corporation, resulting in the reduction of per-line support for the company. If, as SWC believes, the NALC has been increasing partially due to the loss of landline accounts nationwide, thus increasing the per-line operating costs of an ETC, the percentages above that increasing NALC at which USF support is triggered place even greater separation between a rural ETC's actual costs and supportable costs. As SWC continues to expand its FWLL network to reach its unserved customers, SWC's per-line costs increase above the costs it incurs in serving the copper wire-fed customers it acquired from Qwest Corporation. A pernicious phenomenon is experienced where the NALC bar is raised while SWC's costs increase.

SWC must rely wholly on its customers and the USF for its very existence. One factor that has SWC differentiated from many rural LECs in the country is the inordinately low income of its customers and, consequently, the relatively low potential to sell the more nondiscretionary services to its customers in its service territory. Or, to put it bluntly, the USF represents SWC's very life blood. If ever the USF wanted to demonstrate its contributions to the survival of affordable telephone services in rural, high cost areas of this nation, it might only turn to SWC's Navajo customer base.

SWC submits that a POLR Fund be underpinned by several principles: 1) support for rural ETCs be set at a rural ETC's true revenue requirement – that is, its expenses, plus an acceptable rate of return, minus customer revenues; 2) if a

national average loop cost is used, some better relationship in the number needs to be found that reflects the true costs of a rural LEC and its revenue requirement; 3) the percentages above the NALC that are used to trigger USF support for a rural ETC should take into consideration the small customer contribution in the higher cost, low income areas served by some rural ETCs.

SWC also submits that further policy changes be made to mitigate the drain of funding from the POLR Fund. Specifically, SWC recommends that 1) the POLR Fund be used to support the incumbent LEC, and only the incumbent LEC, in the service of any group of customers, as recommended by the Joint Board<sup>6</sup>, unless the incumbent LEC fails to meet its obligations; 2) that POLR Fund support not be transferred to another carrier unless and until that carrier receives POLR designation from the relevant state commission; 3) that POLR Fund support for nonrural LECs be denied in favor of telecommunications low interest loans and grants for specific rural facilities expansion projects; and 4) that the three-fund structure under the USF be implemented as soon as rules and procedures are promulgated, with no transition period.

While SWC recognizes that larger, nonrural LECs serve rural communities, the financial structures of those companies are different from the smaller rural LECs. SWC contends that the cost of construction of new facilities to extend voice and broadband services to remotely situated customers is much more of a burden and challenge for large nonrural LECs than the operating costs to serve those areas. Accordingly, SWC suggests that the FCC develop, in partnership with other federal agencies, programs to offer low interest construction loans or grants for nonrural LECs' specific rural telecommunications development projects instead of support from the POLR Fund. Generally, nonrural LECs assess a statewide residential and commercial rate for all of its customers based on a PUC-authorized statewide average rate. That average rate incorporates the

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<sup>6</sup> Joint Board Recommended Decision, page 19, Section 43.

higher cost of doing business in more rural areas and is a form of compensation to the nonrural LEC that would only be duplicated by the POLR Fund.

Additionally, with the creation of a Mobility Fund, SWC does not see the need for a transition period for mobile ETCs. Furthermore, with the establishment of the policy that the POLR Fund not be used to promote competition, but rather to achieve the FCC's universal service policy objectives, SWC does not believe that a transition period be allowed for wireline competitive ETCs. Currently, no wireline competitive ETC exists in SWC's service territory; nevertheless, SWC believes that the continuation of USF support for such wireline CETCs would sap the intended mission of the USF Fund and could further disadvantage carriers with POLR responsibilities in rural areas.

Respectfully submitted,  
John Badal, CEO  
[electronically filed]  
Sacred Wind Communications, Inc.  
5901- J Wyoming Blvd, NE  
Unit 266  
Albuquerque, NM 87109  
(505) 821-5080